

Abstract

The broad range measurement exploiting the usual propagated light and the high resolution measurement mode exploiting near-field light are to be accomplished with a sole as-assembled optical probe. To this end, light radiated through an optical probe 13 having a light shielding coating layer 33 formed for defining a light radiating aperture D or light radiated at a core 31 of the optical probe 13 is propagated, as the optical probe 13 is moved in a direction towards and away from a surface for measurement 2a. The core of the optical probe is coated with a light shielding coating layer 33. In this manner, a spot of propagated light propagated through the core 31 or a spot of near-field light seeping from the light radiating aperture D is formed on the surface for measurement 2a, and light derived from the spot of light is detected.